

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A neutron detector comprising scintillating material $\text{Cs}_{(2-z)}\text{Rb}_z\text{LiLn}_{(1-x)}\text{X}_6 : x\text{Ce}^{3+}$, where X is either Br or $[\text{I}]$, Ln is Y or Gd or Lu or Sc or La, where z is greater or equal to 0 and less or equal to 2, and x is above 0.0005.

Claim 2 (Previously Presented): The neutron detector according to claim 1, wherein x is above 0.005.

Claim 3 (Previously Presented): The neutron detector according to claim 1, wherein x is less than 0.3.

Claim 4 (Previously Presented): The neutron detector according to claim 1, wherein x is less than 0.15.

Claim 5 (Previously Presented): The neutron detector according to claim 1, wherein it is in the form of a monocrystal.

Claim 6 (Previously Presented): The neutron detector according to claim 5, wherein the volume of the monocrystal is at least 10 mm^3 .

Claim 7 (Previously Presented): The neutron detector according to claim 1, wherein it is in the form of a powder.

Claim 8 (Previously Presented): The neutron detector according to claim 1, wherein it is packed, sintered, or mixed with a binder.

Claim 9 (Previously Presented): The neutron detector according to claim 1, wherein its formula is $\text{Cs}_2\text{LiYX}_6:\text{xCe}^{3+}$.

Claim 10 (Previously Presented): The neutron detector according to claim 1, wherein its formula is $\text{Rb}_2\text{LiYX}_6:\text{xCe}^{3+}$.

Claim 11 (Currently Amended): A method of neutron detection comprising detecting neutrons using a material of formula $\text{Cs}_{(2-z)}\text{Rb}_z\text{LiLn}_{(1-x)}\text{X}_6:\text{xCe}^{3+}$, where X is either Br or $[[\text{I}]]$, Ln is Y or Gd or Lu or Sc or La, where z is greater or equal to 0 and less or equal to 2, and x is above 0.0005.

Claim 12 (Previously Presented): The method according to claim 11, wherein x is above 0.005.

Claim 13 (Previously Presented): The method according to claim 11, wherein x is less than 0.3.

Claim 14 (Previously Presented): The method according to claim 13, wherein x is less than 0.15.

Claim 15 (Previously Presented): The method according to claim 11, wherein the material is in the form of a monocrystal.

Claim 16 (Previously Presented): The method according to claim 15, wherein the volume of the monocrystal is at least 10 mm³.

Claim 17 (Previously Presented): The method according to claim 11, wherein the material is in the form of a powder.

Claim 18 (Previously Presented): The method according to claim 17, wherein the material is packed, sintered, or mixed with a binder.

Claim 19 (Previously Presented): The method according to claim 11, wherein the material formula is Cs₂LiYX₆:xCe³⁺.

Claim 20 (Previously Presented): The method according to claim 11, wherein the material formula is Rb₂LiYX₆:xCe³⁺.

Claim 21 (Currently Amended): A material of the formula ~~Rb₂LiYX₆:xCe³⁺~~
Rb₂LiLnX₆:xCe³⁺ where X is either Br or [[1]] I, Ln is Y or Gd or Lu or Sc or La, and x is above 0.0005.

Claim 22 (Currently Amended): A material of the formula ~~Cs_(2-z)Rb_zLiLn_(1-x)I₆:xCe³⁺~~
Cs_(2-z)Rb_zLiLn_(1-x)I₆:xCe³⁺, where Ln is Y or Gd or Lu or Sc or La, where z is greater or equal to 0 and less or equal to 2, and x is above 0.0005.

Claim 23 (Previously Presented): The material according to claim 21, where x is above 0.005.

Claim 24 (Previously Presented): The material according to claim 21, wherein x is less than 0.3.

Claim 25 (Previously Presented): The material according to claim 24, wherein x is less than 0.15.

Claim 26 (Previously Presented): The material according to claim 21, wherein it is in the form of a monocrystal.

Claim 27 (Previously Presented): The material according to claim 26, wherein the volume of the monocrystal is at least 10 mm³.

Claim 28 (Previously Presented): The material according to claim 21, wherein it is in the form of a powder.

Claim 29 (Previously Presented): The material according to claim 28, wherein it is packed, sintered, or mixed with a binder.

Claim 30 (New): The material according to claim 21, where Ln is Y.